

IN THE CLAIMS

Please cancel claims 15 through 20 without prejudice or disclaimer of their subject matter, and amend claims 1 and 4 through 7, as follows:

1 1. (Currently Amended) A system, comprising:

2 a private EV-DO wireless network coupled to a public EV-DO wireless network
3 including a ~~data location register~~ public Data Location Register (DLR) adapted to provide
4 private EV-DO wireless data service;

5 a ~~relay unit~~ Access Network Transceiver (ANT) adapted to relay a
6 corresponding call connection request signal upon the call connection request signal
7 being received from a terminal entering the private EV-DO wireless network;

8 a ~~call processor~~ private Access Network Control (pANC) adapted to generate a
9 session information request signal with respect to the corresponding terminal upon the
10 call connection request signal relayed from the ~~relay unit~~ ANT being a first call
11 connection request signal, and to process a call by assigning a traffic channel to the
12 connection terminal according to the received session information upon the session
13 information corresponding to the requested session information request signal being
14 received; and

15 a ~~session information processor~~ private Data Location Register (pDLR) adapted to
16 determine whether the session information requested from the pANC station is registered
17 in a database, determine that the session information of the corresponding terminal is a

18 private EV-DO wireless network connection call, request the session information for the
19 corresponding terminal to a public DLR of the public EV-DO wireless network when the
20 session information of the corresponding terminal is not registered and receive the
21 session information of the corresponding terminal from the public DRL, request the
22 session information request signal of the corresponding terminal generated by the call
23 processor from a public network data location register in the public EV-DO wireless
24 network, to extract International Mobile Station Identity (IMSI) from authentication
25 information of for the terminal included in among the session information of the
26 corresponding terminal received from the public DLR, perform private authentication of
27 the corresponding terminal in the pDLR using authentication information from the
28 session information of the corresponding terminal, transmit the session information for
29 the corresponding terminal to the pANC network data location register, to , and store the
30 received session information of for the corresponding terminal in a database upon the
31 authentication information being authentication information of representing that the
32 terminal is registered in the private EV-DO wireless network, and to provide the call
33 processor with the corresponding session information.

1 2. (Original) The system according to claim 1, wherein the authentication
2 information includes an IMSI (International Mobile Station Identity).

1 3. (Original) The system according to claim 1, wherein the session information

2 processor is coupled to a data location register of the public EV-DO wireless network
3 with a dedicated line.

1 4. (Currently Amended) The system according to claim 1, wherein the ~~session~~
2 ~~information processor pDLR~~ provides the ~~call processor pANC~~ with the session
3 information of the corresponding terminal stored in the database upon the first call being
4 connected to the ~~session information processor pDLR~~ without performing a separate
5 terminal authentication process and without requesting the session information of the
6 corresponding terminal from the public ~~data location register DLR~~ of the public EV-DO
7 wireless network, upon a connected call of the terminal received through the ~~relay unit~~
8 ANT being a second or further call connection ~~call~~.

1 5. (Original) The system according to claim 1, wherein the terminal includes a
2 temporary identifier information generator adapted to add temporary identifier
3 information to a call connection request signal transmitted to the ~~relay unit~~ ANT upon a
4 call being connected to the private EV-DO wireless network, the temporary identifier
5 information ~~being used to determine~~ indicating whether a corresponding call is a call
6 connection ~~call~~ to be connected to the public EV-DO wireless network or a call
7 connection ~~call~~ to be connected to the private EV-DO wireless network.

1 6. (Original) The system according to claim 1, wherein the ~~call processor pANC~~

2 includes a routing module adapted to determine make a determination of whether the
3 corresponding terminal call connection call is a private EV-DO wireless network call
4 connection call or a public EV-DO wireless network call connection call according to
5 temporary identifier information included in the call connection request signal
6 transmitted to the relay unit ANT from the terminal, and to rout the corresponding call to
7 one of the private EV-DO wireless network and the public EV-DO wireless network in
8 accordance with a result of the determination.

1 7. (Original) The system according to claim 1, further comprising a data packet
2 service node adapted to provide a corresponding terminal with data via an Intranet in the
3 private EV-DO wireless network through the call processor pANC upon a traffic channel
4 to the corresponding terminal being assigned from the call processor pANC and the call
5 being processed.

1 8. (Original) A method comprising:
2 arranging a private EV-DO wireless network including a private base station, a
3 private control station, and a private data location register, the private EV-DO wireless
4 network being coupled to a public EV-DO wireless network including a public data
5 location register;
6 transmitting a call connection request signal of a corresponding terminal to the
7 private control station by the private base station upon a call connection request being

8 received in the private base station from a terminal entering the private EV-DO wireless
9 network;

10 requesting session information of the terminal for processing a call of the
11 corresponding terminal to the private data location register by the private control station
12 according to the call connection request signal transmitted from the private base station;

13 determining in the private data location register whether the session information
14 requested from the private control station is registered in a database and determining that
15 the session information of the corresponding terminal is a private EV-DO wireless
16 network connection call and requesting the session information of the corresponding
17 terminal to a public data location register of the public EV-DO wireless network when the
18 session information of the corresponding terminal is not registered and receiving the
19 session information of the corresponding terminal from the public data location register;

20 performing private authentication of the corresponding terminal in the private data
21 location register using authentication information included in the session information of
22 the received corresponding terminal and transmitting the session information of the
23 corresponding terminal to the private control station and storing the corresponding
24 session information in a database upon the corresponding terminal being determined to be
25 a private registered terminal; and

26 assigning a traffic channel of the corresponding terminal according to the session
27 information of the terminal transmitted from the private data location register and
28 performing data service through the assigned channel with the private control station.

1 9. (Original) The method according to claim 8, wherein the terminal transmits
2 the call connection request signal to the private control station and additionally transmits
3 temporary identifier information used to determine whether the corresponding call is a
4 public EV-DO wireless network connection call or a private EV-DO wireless network
5 connection call upon a call connection request signal being transmitted to the private base
6 station.

1 10. (Original) The method according to claim 8, wherein requesting the session
2 information of the terminal to the private data location register includes analyzing
3 temporary identifier information included in the call connection request signal
4 transmitted to the private base station from the terminal in the private control station and
5 selectively routing a corresponding call connection request signal to a data location
6 register of one of the public EV-DO wireless network and the private EV-DO wireless
7 network.

1 11. (Original) The method according to claim 8, wherein, in receiving the
2 session information of the corresponding terminal from the public data location register,
3 upon the session information requested from the private control station being registered
4 in the database, the private data location register determines that the call connection of
5 the corresponding terminal is not the first call connection but is a second or further call

6 connection and provides the control station with the session information of the terminal
7 stored in the database without authentication of a separate terminal.

1 12. (Original) The method according to claim 8, wherein the private information
2 includes an IMSI (International Mobile Station Identity).

1 13. (Original) A method comprising:

2 arranging a private EV-DO wireless network system coupled to a public EV-DO
3 wireless network system including a public data location register;

4 determining whether a call connection of the corresponding terminal is a private
5 EV-DO wireless network connection call or a public EV-DO wireless network connection
6 call upon a call connection being requested from a terminal entering a private EV-DO
7 wireless network;

8 determining whether session information for the corresponding terminal exists in a
9 database upon a determination that the corresponding call is a private EV-DO wireless
10 network connection call;

11 requesting the session information of the terminal for performing the private
12 authentication and the call processing of the corresponding terminal to a public data
13 location register located in the public EV-DO wireless network upon a determination that
14 the session information for the corresponding terminal does not exist in the database;

15 extracting IMSI (International Mobile Station Identity) information for

16 authenticating a terminal included in the session information of the received
17 corresponding terminal upon the session information of the corresponding terminal being
18 received from the public data location register;

19 determining whether the extracted IMSI information of the terminal is IMSI
20 information of the terminal registered in the private EV-DO wireless network and
21 performing private authentication of the corresponding terminal; and

22 assigning a traffic channel of the corresponding terminal using the session
23 information of the corresponding terminal and performing data service to the terminal
24 through the assigned channel upon the authentication of the terminal being completed
25 after storing the session information of the corresponding terminal in the database.

1 14. (Original) The method according to claim 13, wherein determining whether
2 the session information for the corresponding terminal exists in the database includes
3 determining that the connection call of the corresponding terminal is a second or further
4 connection call and assigning the traffic channel of the corresponding terminal using the
5 session information of the corresponding terminal stored in the database without private
6 authentication of a separate terminal upon the session information for the corresponding
7 terminal existing in the database and performing data service to the terminal through the
8 assigned channel.

Claims 15 - 20. (Canceled)